

What is claimed is:

1. A directional component for distributing directional rf signals impressed on a coaxial cable that allows for frequency direction reversal comprising:

5 a housing frame having first and second signal ports each for either the input or output of a directional rf signal;

each signal port having an internal coupling means;

10 a signal tap subcomponent having at least one external tap outlet and having an input receptor and an output receptor for operative association with the internal coupling means of said first and second signal ports; and

15 said internal coupling means of said first and second signal ports configured for operative association with said input and output receptors of said signal tap subcomponent to provide a first mounting position where said input receptor is coupled to said first signal coupling means and said output receptor is coupled to said second signal port coupling means and a second mounting position where said input receptor is coupled to said second signal port coupling means and said output receptor is coupled to said first signal port coupling means.

2. The directional component according to claim 1 wherein each of said coupling means further comprise:

a symmetrical seizure post having a split insulator and a conducting clamp; and

5 said conducting clamp having a screw hold-down for capturing
a center conductor of the coaxial cable.

3. The directional component according to claim 2 wherein
said housing frame further comprises two open sides and said signal
tap subcomponent seals one open side of said housing frame and a
cover seals said open housing frame side not covered by said signal
5 tap subcomponent.

4. A directional signal distributing component used in
conjunction with rf signals impressed on a coaxial cable that
allows for frequency direction reversal comprising:

 a housing frame having first and second signal ports each for
either the input or output of a directional rf signal;

 each signal port having an internal coupling means; and

 said internal coupling means of said first and second signal
ports configured for operative association with input and output
receptors of a directional subcomponent to provide a first mounting
10 position where the subcomponent input receptor is coupled to said
first signal port coupling means and said output receptor is
coupled to said second signal port coupling means and a second
mounting position where the subcomponent input receptor is coupled
15 to said second signal port coupling means and the subcomponent
output receptor is coupled to said first signal port coupling
means.

5. The directional signal component according to claim 4
wherein said housing frame has two open sides further comprising
a directional subcomponent mounted in one of said mounting
positions and sealing one open side of said housing frame and a
5 cover mounted in sealing engagement over the other open housing
frame side.

6. The directional signal component according to claim 4
wherein each of said coupling means further comprise:

a symmetrical seizure post having a split insulator and
a conducting clamp; and

said conducting clamp having a screw hold-down for capturing
a center conductor of the coaxial cable.

5. The directional signal component according to claim 6
wherein said housing frame has two open sides further comprising
a directional subcomponent mounted in one of said mounting
positions and sealing one open side of said housing frame and a
cover mounted in sealing engagement over the other open housing
frame side.

8. A method of reversing the frequency direction of a
directional component for distributing directional rf signals
impressed on a coaxial cable which includes a housing frame having
first and second signal ports and a directional subcomponent having

5 an input and an output signal receptor, the method comprising the steps of:

10 providing first and second symmetrical couplings, said couplings individually associated with the first and second ports, respectively, and having the subcomponent input receptor coupled to said first coupling and the subcomponent output receptor coupled to said second coupling whereby said first port functions as an input of the directional component and said second port functions as an output of the directional component;

15 decoupling the directional subcomponent from said first and second couplings; and

20 recoupling the directional subcomponent such that the subcomponent input receptor is coupled to said second coupling and the subcomponent output receptor is coupled to said first coupling whereby the second port functions as an input for the directional component and the first port functions as an output for the directional component.

9. The method according to claim 8 wherein a first coaxial cable is coupled to the first port and a second coaxial cable is coupled to the second port and the steps of the method are conducted without decoupling said coaxial cables.

10. The method according to claim 8 wherein the housing frame has first and second open sides and the subcomponent is in sealing

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engagement with one of said open sides when the subcomponent receptors are coupled with said couplings, further comprising:

5 providing a sealing cover sealingly mounted over the housing open side opposite the side covered by the subcomponent when the subcomponent input receptor is coupled to said first coupling and the subcomponent output receptor is coupled to said second coupling;

10 removing said sealing cover; and

mounting said sealing cover over the housing open side opposite the side covered by the directional subcomponent when the subcomponent input receptor is coupled to said second coupling and the subcomponent output receptor is coupled to said first coupling.

11. The method according to claim 10 wherein a first coaxial cable is coupled to the first port and a second coaxial cable is coupled to the second port and the steps of the method are conducted without decoupling said coaxial cables.

DEPARTMENT OF COMMERCE